CONTENTS OF VOLUME 27

NUMBER 1

iii Editors' Note

1 Assessment of Higher-Order Upwind Schemes Incorporating FCT for Convection-Dominated Problems **Yuguo Li and Murray Rudman**

23 On the Open Boundary Condition for the Simple Algorithm Using Nonstaggered Grids **Yih Nen Jeng and Yuan Chang Liou**

43 Grid Generation for Internal Flow Problems by Methods Using Hyperbolic Equations **Yih Nen Jeng, Yi-Liang Shu, and Wuu-Wen Lin**

63 A-Posteriori Error Estimator for the Control-Volume Finite-Element Method as Applied to Convection-Diffusion Problems **C. Padra and A. Larreteguy**

81 Numerical Modeling of Power Station Steam Condensers — Part 1: Convergence Behavior of a Finite-Volume Model **S. J. Ormiston, G. D. Raithby, and L. N. Carlucci**

103 Numerical Modeling of Power Station Steam Condensers — Part 2: Improvement of Solution Behavior **S. J. Ormiston, G. D. Raithby, and L. N. Carlucci**

NUMBER 2

127 A Grid-Supported Marker Particle Scheme for Interface Tracking **H. S. Udaykumar and W. Shyy**

155 Examination of Solution Methods for the Second-Order Discrete Ordinate Formulation **Kyeong-Beom Cheong and Tae-Ho Song**

175 Extension of the Fractional Step Method to General Curvilinear Coordinate Systems **Xiaohua Wu, Kyle D. Squires, and Qunzhen Wang**

195 Unstructured Additive Correction Multigrid Method for the Solution of Matrix Equations **Yao-Hsin Hwang**

213 *p*-Version Least-Squares Finite-Element Formulation for Axisymmetric Incompressible Newtonian and Non-Newtonian Fluid Flow With Heat Transfer **Nathan B. Edgar and Karan S. Surana**

237 An Uncoupled Algorithm for Calculating Steady-State Laminar Heat Transfer in Three-Dimensional Incompressible Flow **Brian R. Circelli and Stuart E. Rogers**

NUMBER 3

255 MAGG — A Multizone Adaptive Grid-Generation Technique for Simulation of Moving and Free Boundary Problems **Hui Zhang and M. Karim Moallemi**

277 Finite-Element Analysis of Phase-Change Problems Using Multilevel Techniques **Rong-Tsong Lee and Wu-Yao Chiou**

291 Direct Sensitivity Coefficient Method for Solving Two-Dimensional Inverse Heat Conduction Problems by Finite-Element Scheme **A. A. Tseng, T. C. Chen, and F. Z. Zhao**

309 Empirical Evaluation of an Important Approximation for Combined-Mode Heat Transfer in a Participating Medium Using the Finite-Element Method **Shawn P. Burns, John R. Howell, and Dale E. Klein**

323 Calculations of Incompressible Flow on a Staggered Triangular Grid, Part I: Mathematical Formulation **Yao-Hsin Hwang**

337 Calculations of Incompressible Flow on a Staggered Triangular Grid, Part II: Applications **Yao-Hsin Hwang**

NUMBER 4

355 Efficient and Robust Matrix Solver for the Pressure-Correction Equations in Two- and Three-Dimensional Fluid Flow Problems **Charn-Jung Kim and Sung Tack Ro**

371 Accurate Discretization of Incompressible Three-dimensional Navier-Stokes Equations **Ching-Jen Chen, Ramiro H. Bravo, Hamn-Ching Chen and Zhuan Xu**

393 Study of Two-Dimensional Cell-Centered and Vertex-Centered Control-Volume Schemes Applied to High-Temperature Timber Drying **W. J. Ferguson and I. W. Turner**

417 Comparison of General-Purpose Finite-Element Methods for the Stefan Problem **Q. T. Pham**

437 Noniterative Procedure for the Finite-Element Solution of the Enthalpy Model for Phase-Change Heat Conduction Problems **Zhen-Xiang Gong and Arun S. Mujumdar**

447 Use of the Discrete Maximum Principle in Finite-Element Analysis of Combined Conduction and Radiation in Nonparticipating Media **M. Lobo and A. F. Emery**

467 Numerical Solution of Plane-Front Solidification with Kinetic Undercooling **M. Fabbri and V. R. Voller**

487 Free Surface Flow and Heat Transfer in Cavities: The SEA Algorithm **K. A. Pericleous, K. S. Chan, and M. Cross**

FOLLOWING PAGE 508:

Title Page to Volume 27
Contents of Volume 27
Author Index to Volume 27
Subject Index to Volume 27